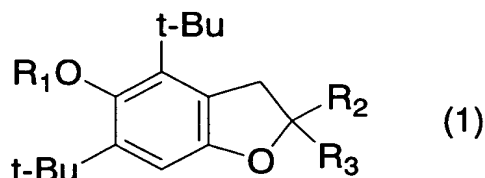


CLAIMS

1. A pharmaceutical composition for ameliorating the vascular tone-regulating function of the vascular endothelium, comprising a compound represented by formula (1):



wherein

- 10 R_1 represents a hydrogen atom or an acyl or arylalkyloxycarbonyl group;

R_2 and R_3 are identical or different and represent an optionally substituted alkyl group, an optionally substituted alkenyl group or an optionally substituted

15 alkynyl group; or

R_2 and R_3 may together form a cycloalkyl group; or a pharmaceutically acceptable salt thereof as an active ingredient.

2. The composition of claim 1 wherein R_1 represents a
- 20 hydrogen atom.

3. The composition of claim 2 wherein R_2 and R_3 represent an optionally substituted alkyl group.

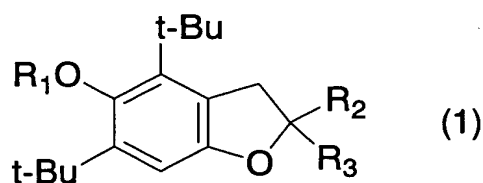
4. The composition of claim 3 wherein the optionally substituted alkyl group is n-butyl, n-pentyl, n-hexyl or n-
- 25 heptyl group.

5. The composition of claim 1 wherein the compound represented by formula (1) is 4,6-di-t-butyl-5-hydroxy-2,2-di-n-pentyl-2,3-dihydrobenzofuran.

6. The composition of claim 1 wherein a condition in which the amelioration of the vascular tone-regulating function of vascular endothelium is needed is induced by a disease selected from the group consisting of hypertension, diabetes and arteriosclerosis obliterans.

7. The composition of claim 6 wherein the condition in which the amelioration of the vascular tone-regulating function of vascular endothelium is needed is intermittent claudication.

8. A method for ameliorating the vascular tone-regulating function of vascular endothelium, comprising administering to a patient in need thereof, an effective amount of a compound represented by formula (1):



20 wherein

R₁ represents a hydrogen atom or an acyl or arylalkyloxycarbonyl group;

R₂ and R₃ are identical or different and represent an optionally substituted alkyl group, an optionally substituted alkenyl group or an optionally substituted

alkynyl group; or

R₂ and R₃ may together form a cycloalkyl group;
or a pharmaceutically acceptable salt thereof.

9. The method of claim 8 wherein R₁ represents a
5 hydrogen atom.

10. The method of claim 9 wherein R₂ and R₃ represent an
optionally substituted alkyl group.

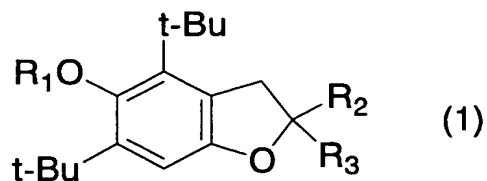
11. The method of claim 10 wherein the optionally
substituted alkyl group is n-butyl, n-pentyl, n-hexyl or
10 n-heptyl group.

12. The method of claim 8 wherein the compound
represented by formula (1) is 4,6-di-t-butyl-5-hydroxy-2,2-
di-n-pentyl-2,3-dihydrobenzofuran.

13. The method of claim 8 wherein a condition in which
15 the amelioration of the vascular tone-regulating function
of vascular endothelium is needed is induced by a disease
selected from the group consisting of hypertension,
diabetes and arteriosclerosis obliterans.

14. The method of claim 13 wherein the condition in which
20 the amelioration of the vascular tone-regulating function
of vascular endothelium is needed is intermittent
claudication.

15. A use of a compound represented by formula (1):



wherein

R_1 represents a hydrogen atom or an acyl or arylalkyloxycarbonyl group;

R_2 and R_3 are identical or different and represent an
5 optionally substituted alkyl group, an optionally substituted alkenyl group or an optionally substituted alkynyl group; or

R_2 and R_3 may together form a cycloalkyl group; or a pharmaceutically acceptable salt thereof in the
10 manufacture of a pharmaceutical composition for ameliorating the vascular tone-regulating function of vascular endothelium.

16. The use of claim 15 wherein R_1 represents a hydrogen atom.

15 17. The use of claim 15 wherein R_2 and R_3 represent an optionally substituted alkyl group.

18. The use of claim 17 wherein the optionally substituted alkyl group is n-butyl, n-pentyl, n-hexyl or n-heptyl group.

20 19. The use of claim 15 wherein the compound represented by formula (1) is 4,6-di-t-butyl-5-hydroxy-2,2-di-n-pentyl-2,3-dihydrobenzofuran.

20. The use of claim 15 wherein a condition in which the amelioration of the vascular tone-regulating function of
25 vascular endothelium is needed is induced by a disease selected from the group consisting of hypertension, diabetes and arteriosclerosis obliterans.

21. The use of claim 20 wherein the condition in which

the amelioration of the vascular tone-regulating function of vascular endothelium is needed is intermittent claudication.